

Human Health Risk Assessment Conceptual Site Model

- Legend**
- Potentially complete pathway
 - ⊗ Incomplete pathway
 - ⊖ Potentially complete pathway but evaluated under a different receptor category in the BHHRA
 - Potentially complete pathway but not evaluated in the BHHRA because exposure is expected to be insignificant

Acronyms

BHHRA (Baseline Human Health Risk Assessment)
CSM (Conceptual Site Model)
RI/FS (Remedial Investigation/Feasibility Study)

| | | Human Receptor Population | | | | | | | |
|-------------------------------|------------------------------|---------------------------|------------------|------------|--------|--------------------------|----------------|------------------------|---------------------|
| | | Current and Future | | | | | | | Hypothetical Future |
| | | Dockside Workers | In-Water Workers | Transients | Divers | Recreational Beach Users | Tribal Fishers | Fishers ^(b) | Residents |
| Exposure Media ^(a) | Exposure Route | | | | | | | | |
| Beach sediment | Ingestion | ● | ⊗ | ⊖ | ⊗ | ● | ● | ● | ⊗ |
| | Direct Contact | ● | ⊗ | ● | ⊗ | ● | ● | ● | ⊗ |
| River sediment ^(c) | Ingestion | ⊗ | ● | ⊗ | ● | ⊗ | ● | ● | ⊗ |
| | Direct Contact | ⊗ | ● | ⊗ | ● | ⊗ | ● | ● | ⊗ |
| Surface Water | Inhalation | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| | Ingestion | ○ | ○ | ● | ● | ● | ○ | ○ | ● |
| | Direct Contact | ○ | ○ | ● | ● | ● | ○ | ○ | ● |
| Transition Zone Water | | | | | | | | | |
| Shoreline seeps | Ingestion | ⊗ | ⊗ | ● | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ |
| | Direct Contact | ⊗ | ⊗ | ● | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ |
| Fish/shellfish | Ingestion | ⊖ | ⊖ | ⊖ | ⊖ | ⊖ | ● | ● | ⊖ |
| | Breastfeeding ^(d) | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ● | ● | ⊗ |

Notes: (a) This CSM includes exposure to media considered a part of the Portland Harbor RI/FS. It does not include media that will be evaluated as part of the specific upland site evaluations and risk assessments.

(b) Fishers include three different ingestion rates, two different shellfish ingestion rates, and two different fishing frequencies.

(c) River sediments evaluated in the BHHRA as an exposure media for ingestion and dermal adsorption exposure routes include sediments collected at depths less than 30.5 centimeters.

(d) Breastfeeding is not quantitatively evaluated in the BHHRA.